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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,182	11/04/2003	Do-Gab Kang	11038-116-999	7520

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EXAMINER

LUBY, MATTHEW D

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<p><i>Office Action Summary</i></p>	<p>Application No.</p> <p>10/702,182</p>	<p>Applicant(s)</p> <p>KANG, DO-GAB</p>	
	<p>Examiner</p> <p>Matt Luby</p>	<p>Art Unit</p> <p>3611</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/04/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 48 (page 5, paragraph 0021, line 7). It is believed that this reference number should be changed to "49" since the formerly described "fixed groove" was referred to with reference number "49". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: It is believed that paragraph 0030 contains a typographical error because it states as shown "in Fig. 7, the controller 23 provides a current much smaller than 1 ampere to the solenoid 21 when a vehicle is moving at a slow speed." It is believed "slow" should be changed to

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"fast" because Fig. 7 shows that the current provided to solenoid increases the slower the speed of the vehicle.

Appropriate correction is required.

Claim Objections

3. Claim 4 is objected to because of the following informalities: the word "cope" (line 5) is believed to be misspelled and should be changed to cooperate. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Goodrich, Jr. et al. (U.S. Patent 5,046,574).

Goodrich, Jr. et al. disclose a vehicle speed response type power steering system, comprising: connecting means (shown in Figure 1) disposed between a valve sleeve (68) and a valve spool (66) of a control valve (64), for changing rotational force applied to rotate said valve spool in relation to said valve sleeve in response to a pressure provided to said connecting means (when pressure, in the form of an increased flow of hydraulic fluid/oil from reservoir, 106, is applied to reaction chamber,

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100, the detent elements will either move axially inward or outward depending on the pressure supplied which will change the rotational force applied to rotate the valve spool and either make it easier at low speeds to steer or harder at high speeds to steer as explained at line 40 of column 3 to line 35 of column 6); a solenoid valve (130) for controlling a flow rate of oil provided from a power steering pump (104) to supply the oil to said connecting means; a controller (ECM 132) controlling said solenoid valve in response to the vehicle speed (sensed from 134); and a cut-of valve (136) controlling the flow rate of oil returned to an oil reservoir in response to pressure change of oil provided to said connecting means.

6. Regarding claim 2, Goodrich, Jr. et al. disclose that the connecting means comprise: an extension ring (42) integrally connected to said valve sleeve; a reaction ring (90) installed at a periphery of said valve spool for relative rotation of said reaction ring to be limited in relation to said valve spool and for an axial linear movement of said reaction ring to be enabled in relation to said valve spool; a spring (102) and a spring seat (96) disposed to press said reaction ring to a lateral surface of said extension ring; two control grooves (86) formed to face each other in between said extension ring and said reaction ring for controlling the relative rotation of said reaction ring against said extension ring; a control ball (88) inserted into said control groove; and a valve cap (40) facing the reaction ring with a reaction chamber (100) formed between the valve cap and the reaction ring while the spring and the spring seat are formed in the reaction chamber which forms a pressure to be applied to the reaction ring.

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7. Regarding claim 3, Goodrich, Jr. et al disclose that the spring seat is a round plate (96) inserted into a periphery of the valve spool (as shown in Figure 2).

Allowable Subject Matter

8. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it relates to vehicle speed response type hydraulic power steering systems.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt Luby whose telephone number is (571) 272-6648. The examiner can normally be reached on Monday-Friday, 9:30 a.m. to 6:00 p.m..

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571) 272-6612. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Matt Luby
Examiner
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A handwritten signature in black ink, appearing to read "Matt Luby", written in a cursive style.

M.I.
March 21, 2005